September 15, 1999

Dear Colleague:

In August 1998, Governor Jim Gilmore announced the creation of the Council on Technology Services (COTS) and appointed Secretary of Technology Donald W. Upson as Chairman. COTS was developed to address a variety of issues facing technology in government today. Several workgroups were established to discuss individual technology issues. More information on COTS, including membership, workgroups, schedules, and publications, can be found on the Internet at *http://www.sotech.state.va.us/cots/*.

The COTS Seat Management Workgroup was designated in November 1998 to discuss alternatives to state and local government purchase of PC desktop technology. The concept, called seat management, is a performance-based contractual agreement that provides for total PC desktop management to become a utility. The Workgroup has researched the Internet, interviewed federal, state, and local government officials, and invited vendors to present on the issue of seat management. The Workgroup's findings are contained within this attached document, entitled *Seat Management for the Commonwealth of Virginia*.

The Workgroup hopes the following Report will help the reader understand the concept of seat management and how to implement a program. The Workgroup thanks those who provided information and made presentations for the preparation of this report.

Sincerely,

(S)

Peter R. Kolakowski
COTS Seat Management
Workgroup Chair

Cc: The Honorable Donald W. Upson

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The COTS Seat Management Workgroup gratefully acknowledges those government agencies and private-sector seat management providers who contributed to the knowledge obtained in this report.

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Contents

I. Executive Summary

Government in the Information Age must face a number of problems with PC desktop service, namely the rapid change of technology, interoperability issues, declining staffing resources, declining or level funding combined with inflating prices, and a lack of single-source accountability.[1] The federal government has sought to address these and other issues by developing seat management (a term coined by the General Services Administration, or GSA[2]), which transfers complete PC desktop responsibility from the government to a private contractor.

In seat management, the vendor is responsible for acquisition, planning, installation, configuration, testing, maintenance, repair, upgrades, training, project management, asset management, disposal, and other PC desktop services. Like leasing, the vendor is the owner of the asset and the customer pays a fee per "seat," or all the equipment at a user's desk. However, seat management is not leasing; it includes services that stretch beyond the realm of any leasing program. Seat management turns the PC desktop into a sort of utility; the customer purchases the right to use the vendor's equipment and resources, but the vendor is the owner and is ultimately responsible for its upkeep (like power lines, phone lines, television cable, and cellular phones). With seat management, government staff does not need to worry about day-to-day computer support and can concentrate on their core functions. It streamlines procurement as well, creating one supplier, one report, one bill, one charge per user, and one point of contact/accountability.

Seat management is a form of performance-based contracting, which means the customer pays a fixed fee and the vendor must meet prescribed service levels to earn that fee. This practice places a great deal of the risk on the vendors, who now have incentive to perform service correctly and in a timely manner. Agencies have predictable costs and know what kind of service to expect for that cost.

The Council on Technology Services (COTS) Seat Management Workgroup has met monthly since November 1998 to explore the pros and cons of seat management and the possibility of introducing a seat management program to the Commonwealth of Virginia. The Workgroup's findings are discussed in this report.

Why Seat Management?

The basic services provided by seat management include hardware/software acquisition, planning, configuration, testing, installation, support, maintenance, repair, upgrades, training, asset management, technology refreshment, disposal, software license management, central help desk support, and management of existing assets. Some agencies have added telecommunications services to their seat management programs.

Before most agencies implement new programs, they typically perform a cost benefit analysis or a Total Cost of Ownership (TCO) study. TCO delves into the overall cost of information technology for an organization, far beyond the purchase price of the computer itself, and is different for every organization. Chapter III describes the factors

to consider when performing a TCO study. The process is difficult, because costs are buried in a number of departmental accounting ledgers or are expressed in lost time rather than dollar amounts. Because the vendor is responsible for the asset and provides one report and one bill, TCO is much easier to determine when an agency uses a seat management contract. Also, seat management costs decrease over time, after the transition is over and internal support costs and end-user IT become lower.

Seat management also:

- Serves as a quick way to get a large number of systems standardized without major up-front funding, enhancing compatibility among users and reducing support costs for disparate applications,
- Places technology refreshment on a schedule, reducing maintenance costs on older equipment and ensuring that all agency-standard applications will run on every computer,
- Reduces downtime users must endure when reporting problems,
- Ensures proper loading and configuration of machines,
- Promotes accurate asset management,
- Reduces agencies' expense in the storage, sale, or disposal of surplus equipment,
- Provides a single source of accountability for all PC desktop hardware and services,
- Simplifies procurement and accounting,
- Levels the PC procurement and services budget, eliminating "peaks and valleys" and encouraging agencies to think of information technology as an investment rather than a way to spend leftover funds at the end of the fiscal year,
- Ensures that technology is kept standardized and working properly, and
- Enables government staff to concentrate on the agency's core mission.

Who Has Tried Seat Management?

There is currently a limited number of seat management programs that agencies and political subdivisions have tried, including Virginia Department of Transportation/Virginia Retirement System (VDOT/VRS) Services for Information Technology/Enterprise Architecture (SITEA), GSA Seat Management, National Aeronautics and Space Administration (NASA) Outsourcing Desktop Initiative for NASA (ODIN), University of Virginia (UVA) Desktop Computing Initiative (DCI), and other programs tried by the Bureau of Alcohol, Tobacco, and Firearms (ATF) and the University of Texas Medical Branch (UTMB), among others. Every agency who has tried seat management so far has reported improved service delivery and projected cost savings. Specific lessons learned include getting management buy-in and being specific on Service Level Agreements (SLAs) and the procedure for vendor noncompliance with SLAs. UVA has introduced some unique ideas; since educational institutions have varied needs, DCI offers Wintel *and* Apple platforms, desktops and notebooks, and standard and high-performance configurations. They also plan to make DCI computers available to students through the school bookstore and will grant a limited number of machines to students who qualify through the Office of Financial Aid.

What Are The Procurement Choices?

The major choices an agency must make in procurement are to make a single or multiple award, how to prequalify vendors, whether to choose generic computers or GartnerGroup Tier 1/Tier 2 computers, how to fund seat management, and what will happen to current agency staff.

Based on its research, the Workgroup has made recommendations on all these choices. Single award contracts may work well for small procurements, but for a large contract involving multiple agencies or an agency with many sites spread out over a large geographical area, multiple award contracts make more sense. In this case, vendors would be qualified prior to solicitation to ensure competing vendors are experienced enough to provide seat management and narrow the number of RFP responses that must be evaluated. Then an RFP would be released and a number of vendors would be chosen for individual agencies to choose from.

The Workgroup also discussed the reliability of generic computers or "white boxes" compared to GartnerGroup Tier 1/Tier 2 classes of computers and the future of current government IT staff (they are offered higher-level positions within the agency or hired by the contractor). The Workgroup looked at equipment funding programs, but has not yet found one that works for seat management.

What Has Occurred In The Seat Management Workgroup Discussions?

The Workgroup discussed the effectiveness of governmentwide agency contracts (GWACs), a federal term used to describe multiple award contracts open to a wide variety of government bodies. The best-known seat management GWAC is GSA's Seat Management Services. Eight vendors were chosen for the contract; vendors agreed upon not-to-exceed prices. Agencies issue task orders against the contract, and each vendor submits a task order proposal for the agency to make a final decision. This master contract procedure is similar to that of a Bodyshop contract for information technology contractors; the award is made to multiple vendors. Only the awarded vendors receive individual task requests from agencies. In a Bodyshop contract, the vendors submit staff resumes and hourly rates for the candidates, and the agency makes a decision based on those "mini-proposals." In a GWAC, vendors submit task order proposals with cost and implementation plans for the agency to make their decision. This process eliminates the need for a separate procurement every time there is a small requirement within an agency. It eases the administrative burden and assures the agency that there is some not-to-exceed pricing in place.

Other GWACs include NASA's Outsourcing Desktop Initiative for NASA (ODIN) and the U.S. Department of Transportation's Information Technology Omnibus Procurements (ITOP/ITOP II). These GWACs have similar processes for issuing task orders, and all three GWACs offer the same type of seat management services, with a few variations. ODIN requires due diligence during the task order solicitation. Vendors get to visit the site in need of service to accurately assess its equipment situation, resulting in better

pricing and implementation plans, due to the fact that vendors do not have to add extra cost for little "surprises" that creep up later. ITOP II is a larger GWAC that covers a number of services. It specifically lists seat management as a service, but its pricing is in labor-hour rates, making it not very conducive to the performance-based contracting that is such a great benefit of seat management.

GWACs seem to be a good solution to providing seat management because they ease the procurement burden. However, the federal and Virginia state governments prohibit these GWACs from being available to state and local agencies because there are still some issues that need to be addressed concerning lack of local/small business competition and dispute-handling mechanisms. A possible answer to this obstacle could be for the Commonwealth to create its own state-level GWAC.

The Workgroup also invited a number of seat management vendors to present their services; they were Government Technology Services, Inc. (GTSI), EDS, IBM Global Services, Dell, and Gateway (with Megabyte Business Systems, Inc., or MBS, as their integrator). These vendors presented their views of what a seat management contract should entail. Some vendors, such as EDS, wanted to include applications development as well as PC desktop management, while other vendors, such as IBM and Gateway, said that the only limits to the services provided in seat management are the amount of money a customer wishes to pay and the level of service. GTSI and Dell both said their service selections are "à la carte"; an agency can pick and choose from a menu of services.

GartnerGroup also presented their views on what makes a good seat management contract. They stressed the importance of due diligence in two ways – learning as much about the vendor's tools, methodologies, and subcontractors as possible and sharing information with proposing vendors. They also suggested that service level agreements (SLAs) should be placed in an addendum so they may be more easily modified than an entire contract.

Conclusions

The Workgroup concluded that seat management is a good solution for supplying PC desktop support, because it:

- Provides a single source of accountability for all PC desktop hardware and services,
- Simplifies procurement and accounting,
- Levels the PC desktop procurement and services budget, eliminating "peaks and valleys" and encouraging agencies to think of information technology as an investment rather than a way to spend leftover funds at the end of the fiscal year,
- Ensures that technology is kept standardized and working properly,
- Reduces downtime experienced when users report problems,
- Places technology refreshment and upgrades on a schedule, rather than a sporadic expense made whenever money is available,
- Eliminates the clutter and expense of warehousing and selling surplus equipment, and
- Enables government staff to concentrate on the agency's core mission.

Procurement laws and regulations do not seem to need major changes to accommodate seat management, and while it is not feasible to use an existing federal procurement vehicle, it is possible to develop a Commonwealth of Virginia procurement vehicle.

Seat management has its risks, as with any new venture, including packaged service inflexibility and the possibility of an agency's need to cancel its contract and return or buy out the existing seat management machines. But most seat management users agree that these concerns can be addressed in the contract and the benefits far outweigh the risks.

Cultural and organizational changes occur when an agency implements seat management, including the loss-of-control perception that management experiences, staff's fear of losing their jobs, and staff realignment into other areas, including seat management contract oversight. Management buy-in is essential, especially in the early stages of seat management, so managers do not feel like they are losing control. Human resources and communications departments must also get involved in communicating that seat management is meant to make users' jobs easier and enable them to focus on their core responsibilities.

The following is a list of specific Workgroup findings:

- The five steps to a good seat management program are: KIS (Keep It Simple), standardize, use economy of scale, make cultural and organizational changes, and clearly define the roles and responsibilities of everyone involved.[3]

- Seat Management needs to be platform independent to allow contract flexibility.

- Start with pilots before going into full-blown seat management. The amount of money identified should include the pilots.

- Set up a single point of contact for an agency to interact with/manage the vendor.

- Get human resources and communications departments involved in communicating how seat management impacts staff. Executive buy-in is also important, especially in the early stages of procurement.

- Perform a site survey and due diligence when procuring for seat management.

- In the contract, spell out service levels, performance evaluation metrics, and what will happen if SLAs are not met.

- Perform a TCO or cost benefit analysis prior to entering into seat management. Choose a TCO vendor who most likely will not be the seat management provider and will not have a vested interest in the seat management contract.

- After examining the Equipment Trust Fund (ETF) and the Master Equipment Leasing Program (MELP), the Workgroup has not found a source to fund the transition to seat management. It is currently not possible to use the Treasury Board's Equipment

Trust Fund (ETF) program for funding the transition to seat management for colleges and universities, but altering ETF may hinder its ability to fund the other types of equipment it was designed to fund, such as scientific and research equipment.

Workgroup Recommendations

- The COTS Seat Management Workgroup recommends that the Commonwealth of Virginia should move to a seat management program in order to support the business needs of the Commonwealth, with exceptions as necessary over the next biennium. Pilots within all agencies should conclude over the next two biennia. The participants should be all state agencies as well as educational institutions, local governments (including school districts), and college students. The Commonwealth should consider an implementation goal of July 1, 2000, with the transition period to be determined thereafter. Legislative and judicial branches are encouraged to participate. While making a seat management approach available to state employees is not practical for current purposes (it is not a benefit directly applied to seat management), the possibility should be further explored.

- The Technology Secretariat should establish a Seat Management Office as a point of contact for the Commonwealth. Duties should be to coordinate the development of contracts, set minimum standards, serve as a best practices repository, be a resource to agencies, assist in funding pilots, evaluate and recommend any modifications to seat management practice in the state, develop a transition plan to seat management or from one seat management contract to a new one, and work out an alternate or change-of-vendor strategy.

- Each agency, college, and institution needs to outline a simple, repeatable process for determining TCO as minimum performance measure criteria. The process should include a standardized indirect cost set by the Seat Management Office. Agencies should evaluate TCO and benefits prior to implementing seat management *and* on an ongoing basis.

- The cost to provide the transition to a seat management program is estimated to be $7.2 million (general fund) for the Biennium 2000-2002; this figure is determined by the estimated $1,200 annual seat cost multiplied by 10 percent of the estimated 60,000 PC desktops in use statewide.

- As the Workgroup determined ETF is not feasible for funding the transition to seat management for colleges and universities, the Seat Management Office should work with colleges and universities as well as the Treasury Board to develop an ETF II.

- Because there are so many different ways to provide seat management, it should be up to each agency to determine PC desktop standards, as long as they meet a state minimum set of standards. Hardware should be limited to GartnerGroup Tier 1 and Tier 2 brands. Procurement for seat management should be open-ended to take into consideration the standards of each agency. Agencies and vendors need to outline a

policy concerning agencies loading software for individual users, with the agencies' understanding that it drives up costs if the machine is affected by the software load.

- The scope of seat management may be modeled after the GSA Seat Management contract, setting a minimum floor with a choice of core and optional services. There should also be a standard set of service level agreements (SLAs). The Seat Management Office should set up the menu of options.

- The Workgroup is aware of the other discussions currently occurring regarding who will have IT procurement responsibility and wishes to emphasize that whoever is responsible for seat management should make it a multiple award procurement. Agencies should have multiple vendors to choose from who should be prequalified for seat management to ensure vendors have the experience and proven ability to handle the contract.

- The Seat Management Office should create a seat management template. The length of a contract should be no more than 36 months, with a 12-24-36 refresh cycle. The Office should also develop an agency guidebook on seat management.

- To allow vendor prequalification, the VPPA, Section 11-46.B.2 should be reworded. The word *construction* should be removed from "The contractor does not have appropriate experience to perform the construction project in question." Without *construction*, agencies are free to use lack of experience as an eliminating factor in prequalification.

- A change in administrative policy needs to be made if the Seat Management Office wants to allow trade-in of old equipment for seat management. *APSPM* 12.7.f(1) prohibits trade-in of state property for credit toward a service, but it does allow trade-in to obtain a newer item that performs the same function as the old item. Seat management is a services contract that replaces old technology performing the same function. The section should be reworded to allow credit for trade-in of the replacement seat management PCs.

- With the Technology Secretariat being recommended to have responsibility for establishment and implementation of the Commonwealth's seat management program, Code of Virginia and *Agency Procurement and Surplus Property Manual* (*APSPM*) sections require review for applicable changes to be prepared for the 2000 General Assembly session.

- Appropriate agencies, the attorney general, and the Division of Legislative Services should be involved in code review.

With these recommendations in place, the COTS Seat Management Workgroup feels that the Commonwealth can implement an effective seat management program that will address the needs of all state agencies as well as many educational institutions, local governments (including school districts), state employees, and college students.

II. Introduction

A number of problems face PC desktop service in today's government, the most important of which are the rapid change of technology, interoperability issues, declining staffing resources, declining or level funding combined with inflating prices, and lack of single-source accountability.[1] How can government information technology departments regularly replace old technology, improve trouble response, simplify the acquisition and disposal process, and level their budgets?

The federal government has recently addressed these issues by developing seat management, an indefinite delivery, indefinite quantity (IDIQ) contracting agreement that transfers the responsibilities of acquisition, planning, installation, configuration, testing, maintenance, repair, upgrades, training, project management, asset management, and other aspects of the PC desktop computing environment from the agency to a contractor. Seat management turns the PC desktop into a sort of utility; the customer purchases the right to use the vendor's equipment and resources, but the vendor is the owner and is ultimately responsible for its upkeep (like power lines, phone lines, television cable, and cellular phones). Fees are charged monthly by the "seat," or the entire "package" at each user's desk. This process is designed to turn the PC desktop into a tool to assist the user in concentrating on the agency's core mission rather than on the daily operations of the computer. With seat management, the business value of the PC desktop is realized rather than the technology itself. It is also meant to streamline the information technology (IT) acquisition process – one supplier, one report, one bill, one charge per user, and one source for accountability. Vendors may subcontract portions of the work, but they still bear the responsibility.

Seat management is a form of outcome- or performance-based contracting. This type of contracting is where the customer pays a fixed fee and expects a specific level of service for that fee. In labor-hour contracts, the customer is at risk; costs aren't predictable and the vendor has no incentive to perform work in a timely manner. With performance-based contracts, the vendor assumes most of the risk, because they must do what is necessary to achieve the prescribed outcome, or risk losing a portion of their fee. The contractor has a chance to employ business best practices to achieve the desired service level.[2] With seat management, agencies have predictable costs and know what kind of service to expect for that cost.

The idea behind seat management indirectly stems from the concept of outsourcing as a way to make government more efficient and responsive to customers.[3] The idea is that private industry has already mastered the concept of making business more cost-efficient and effective. Three major federal agencies can be considered pioneers of the seat management concept: the General Services Administration (GSA), the National Aeronautics and Space Administration (NASA), and the Department of the Treasury's Bureau of Alcohol, Tobacco, and Firearms (ATF). It was GSA who coined the phrase "Seat Management," which has become a generic term used by many agencies.[4]

Because the contractor owns the PC desktop and charges the agency a monthly fee, seat management has often been referred to as leasing. Seat management is a services contract, not a goods contract. One component is leasing, but in most cases, it is only a small portion and the two phrases should not be confused.

In August 1998, Commonwealth of Virginia Governor Jim Gilmore announced the creation of the Council on Technology Services (COTS), appointing Secretary of Technology Donald W. Upson as Chairman. COTS was developed to address a variety of issues facing technology in government today, and was later divided into several Workgroups to discuss individual issues, including the Seat Management Workgroup, whose findings are the focus of this report. The Workgroup meets monthly to examine alternatives to purchasing computer equipment for state agencies and educational institutions. A detailed list of the issues covered by the Workgroup can be found in Appendix A, the Seat Management Workgroup Charter. More information on COTS can be found on the Internet at *http://www.sotech.state.va.us/cots/*.

Since November 1998, the Seat Management Workgroup has reviewed issues to reveal an ideal seat management program for the Commonwealth, including:

- Examining the concept and RFP process for the VDOT/VRS seat management program, Services for Information Technology/Enterprise Architecture (SITEA), and the General Services Administration (GSA) Seat Management contract,
- Exploring the feasibility of the Equipment Trust Fund (ETF) and the Treasury Board Master Equipment Leasing Program (MELP) to pay for seat management,
- Discussing issues related to seat management that contribute to the IT Procurement Workgroup's business, and
- Inviting a variety of vendors to present their seat management solutions to the Workgroup.

Before the Commonwealth of Virginia considers embarking on a seat management program, there are a number of issues that must be addressed. They include:

- Is it going to save money?
- Do our procurement laws allow for it?
- What is the most efficient process for procuring it?
- How will we set aside funding?
- Is it reversible if it fails?
- What is the scope of services covered?

The following chapters will outline the Seat Management Workgroup's research, which includes comparing purchasing, leasing, and seat management, examining current seat management programs, looking at procurement issues, and reviewing discussions that took place in Workgroup meetings.

III. Seat Management Compared To Purchasing And Leasing

As noted in Chapter II, seat management is a completely new way of thinking about acquiring PC desktop technology resources. While leasing is a component of a seat management program, it is only a small part of the big picture. This chapter will address the differences of the three major choices, in terms of both cost and benefit, for acquiring PC desktop resources: purchasing, leasing, and seat management.

Different agency customers want different services out of seat management. The basics are acquisition of PCs, servers, printers, and other PC desktop equipment; planning; installation; configuration; testing; maintenance; repair; upgrades; training; project management; and asset management. However, there are other options agencies choose that can affect the cost and benefits of implementing seat management. These include software license management, help desk support, LAN administration and support, IT security, maintenance of existing assets, and management of existing assets. NASA has even added communication services, such as telephone, radio, TV/video, public address, fax, and remote communications.[1] Whatever the options, the contractor owns all hardware, so it is the contractor's responsibility to implement, maintain, and dispose of it.

With the variety of services that can be part of a seat management program, it is difficult to nail down one price range and benefits list for everybody. But its wide range of services is also one of the things that makes seat management so appealing.[2] Customers like to have the flexibility to add a PC desktop item that overburdens their internal staff.

The TCO Factor

One of the attributes that appears in any seat management discussion is Total Cost of Ownership (TCO). TCO delves into the overall cost of information technology for an organization, far beyond the purchase price of the computer itself. TCO is different for every company or government entity, and giving average TCO ranges can be misleading, so before taking numbers printed in any publication too seriously, it is important to realize that those numbers don't necessarily reflect a specific agency's TCO. It is a good idea for each agency to perform its own TCO study.

TCO, as defined by the GartnerGroup, breaks costs into direct and indirect factors. Direct factors include:

- Hardware, software, peripherals, network (acquisition, disposal, residual, lease fees),
- Management hours (staffing, outsourcing),
- Support hours (help desk, operations labor such as administrative assistance, executive management, technical training, travel, procurement, maintenance/support, contracting, overhead),
- Development (application design, development, testing, documentation), and
- Communications (LAN/WAN lines, remote access software (RAS)).

Indirect factors include:

- End-user IS, or IT (end-user training, self-teaching/development/support, relying on non-IT peers, "futzing" around (playing PC games and other non-work PC use), and
- Downtime (planned or unplanned, for testing, upgrades, installations, repair).[3]

One argument for seat management is that it can ease the financial and physical burden of certain factors that make up TCO. With seat management, an agency can transfer partial or full responsibility of every factor except development. The vendor is responsible for ordering, configuration, disposal, PC desktop support, planning, project management, user training, and even communications (if desired). The vendor is also responsible for procuring all the resources necessary to fulfill seat management needs, including its own staffing and subcontracting. The agency is still responsible for administration, executive management, and development. Indirect factors are affected; a contractor-supplied support staff is expected to be more responsive than internal staff, because support is the contractor's *only* duty. Therefore, internal IT staff may focus on higher-level functions and users would have the confidence to report trouble rather than spend hours on it themselves.

The following chart represents a point-by-point comparison of purchasing, leasing, and seat management, so responsibilities may be compared side by side.

	Purchasing	Leasing	Seat Management
TCO Direct: Hardware, Software, Peripherals, Network	Agency is responsible for procurement, configuration, and disposal. Agency pays one lump sum for equipment.	Agency is responsible for procurement and configuration, but not disposal (unless it is a lease-to buy contract).	Vendor is responsible for ordering, configuration, disposal, and much more.
TCO Direct: Management Hours	Agency handles all staffing, including interviewing prospective Full-Time Equivalents (FTEs) AND outsourcers. Agency is also responsible for planning and project management.	Agency handles all staffing, including interviewing prospective FTEs AND outsourcers. Agency is also responsible for planning and project management.	Vendor staffs PC support personnel and does planning and project management. Agency staffs development and other functions not associated with Seat Mgt.
TCO Direct: Support Hours	Agency is responsible for administrative assistance, executive mgt., procurement, support, maintenance, travel, training, outsourcing, etc.	Agency is responsible for administrative assistance, executive mgt., procurement, support, maintenance, travel, training, outsourcing, etc.	Vendor handles desktop procurement, maintenance, support, user training, PLUS travel and training for its own staff to do their job. Agency handles admin. assistance and exec. mgt.
TCO Direct: Development	Agency is responsible for all development.	Agency is responsible for all development.	Agency is responsible for all development.
TCO Direct: Communications	Agency is responsible for all communications lines, RAS, etc.	Agency is responsible for all communications lines, RAS, etc.	Communications CAN be incorporated into a seat management program.
TCO Indirect: End-user IS/IT	Agency picks up the productivity loss for end users teaching themselves or asking peers for help when they are reluctant to call help desk.	Agency picks up the productivity loss for end users teaching themselves or asking peers for help when they are reluctant to call help desk.	Vendor must conform to established Service Level Agreements (SLAs) to get the job done within a reasonable time period. This helps inspire more confidence from users.
TCO Indirect: Downtime	Agency's SLAs may not be met because agency doesn't have the staff to solve problems or perform upgrades and maintenance in a reasonable amount of time.	Agency's SLAs may not be met because agency doesn't have the staff to solve problems or perform upgrades and maintenance in a reasonable amount of time.	Vendor must comply with SLAs for repair, maintenance, and upgrades.

Budget & Payment	Agency pays a lump sum for PCs when they have available funds, creating irregular budgeting with "peaks and valleys." Agency pays staff and outsourcers separately.	Agency pays a monthly rate for equipment and refresh, leveling the procurement budget. Agency still pays staff and outsourcers separately.	Agency pays a single monthly rate for PCs, refresh, and services together, leveling the entire PC goods and services procurement budget.
Technology Refreshment	Agency pays a large lump sum and can only refresh technology when the money is available; therefore refreshment is not on a schedule and equipment can easily become out of date.	Refresh costs are included in the monthly fee so agency pays for the refresh over the term of the contract.	Refresh costs are included in the monthly fee so agency pays for the refresh over the term of the contract.
Platform Compatibility	This depends on whether the agency orders PCs and peripherals centrally or locally (local is less likely to be standard).	Leasing contracts are centralized, so the vendor has a standard set of items to choose from.	Seat management contracts are centralized, so the vendor has a standard set of items to choose from.
Upgrades/Latest Software Versions	Agency is responsible for upgrades of software.	Agency is responsible for upgrades of software.	Agency has the option of giving the vendor responsibility for maintaining the latest version of software.
Installation, Maintenance, Support	Agency provides installation, maintenance, support, testing, etc.	Agency provides installation, maintenance, support, testing, etc. OR some vendors offer service – the cost can be rolled into the lease price.	Vendor performs all installation, configuration, maintenance, support, testing, etc.
Asset Management	Agency is responsible for documenting incoming/outgoing inventory and moves/adds/changes (MACs).	Agency is responsible for documenting incoming/outgoing inventory and MACs.	The vendor handles ALL asset management and reporting for its own equipment, and can manage existing assets as well if it is in the contract.
Disposal	Agency disposes of state-owned assets, complying with *Agency Procurement and Surplus Property Manual* (*APSPM*) procedures and paying a fee to DGS for storage and sale of surplus property.	The vendor handles disposal without having to adhere to *APSPM* rules.	The vendor handles disposal without having to adhere to *APSPM* rules.
Use of Internal IT Staff	Agency needs a large IT staff to have people for development, networking, security, AND help desk/PC support. Often it is hard to find qualified people and an agency must outsource or overwork current staff, keeping them from doing the duties they were hired for.	Agency needs a large IT staff to have people for development, networking, security, AND help desk/PC support. Often it is hard to find qualified people and an agency must outsource or overwork current staff, keeping them from doing the duties they were hired for.	Agency can trim IT recruiting/outsourcing by eliminating the need for internal PC support. Current staff can opt to go into higher-level functions such as networking or Web development; in many cases the vendor may employ them if the employee prefers PC support.

Theoretically, seat management is the most efficient and cost-effective choice for bringing PC desktop services to the user. But how do the savings play out in real life? As mentioned before, there are dangers involved with including average numbers in reports like this – an agency could be on the higher or the lower end of the scale, depending on types of platforms, special-purpose applications, etc. An agency would be better off developing its own TCO, and comparing it to seat management estimates combined with operations the agency must keep in house.

Speaking of developing an agency-specific TCO, it requires significant record keeping over a variety of departments to quantify direct factors, and indirect factors are hard to track and not an exact science. Seat management, however, makes TCO very simple to see, because it is an entire package of services on one invoice!

One thing that seat management experts do agree on, though, is that an organization may not *immediately* see a cost improvement. Seat management is a long-term commitment, and TCO savings is seen over time, after the transition period is over, when internal support costs and end-user IT decrease.[4]

Budget And Payment

With purchasing, billing and payment arrangements are lump sum, creating "peaks and valleys" in an agency's budget.[5] Sometimes, PC desktop purchases are made with end-of-year surplus funds. Technical support, whether in house or outsourced, is paid for separately. With leasing, the customer pays a lower, monthly rate – a fixed rate for a fixed period of time, and at the end of the term the customer has the option to purchase, continue leasing, or return the equipment. This eliminates the fluctuations in spending, but the customer still needs to pay separately for a number of support services. With seat management, costs of acquiring the asset and supplying the staff to support it are grouped into one monthly price per seat, or per user. This system provides one invoice, with fewer accounting headaches. Seat management also levels the budget for equipment and services, and makes it easier to plan for upcoming year budgets.[6]

Standardization

Much has been said about standardizing the PC desktop environment. According to Giga Information Group, standardized PC desktop environments are 15-20 percent less costly than nonstandardized environments.[7] This is because it takes fewer resources to maintain a standardized environment. Standardization within an enterprise includes keeping technology current, or "refreshed," and making sure software and platforms are current and compatible with other units in and outside of the enterprise. Without standardization, e-mail and attachments would be incompatible with others, support staff would have a hard time troubleshooting all the applications on every user's PC desktop, and maintenance costs on old PCs would be very expensive. Seat management is an effective way to get a large PC desktop environment standardized for little up-front money.

Technology refreshment is a term used to describe making sure equipment is current. Technology changes at a rapid rate; it is generally agreed that three years is a good "refresh rate," or frequency of replacing computers. When PC desktop and server equipment is purchased, it must be used longer than three years to realize a full benefit from the investment. As a result, many agencies perform refreshment sporadically. With leasing and seat management, refresh costs are included in the monthly price so it can be paid for over the term of the contract. And seat management puts technology refreshment on a schedule that the contractor is expected to track.[8]

Software and platform compatibility can be accomplished by keeping ordering capability centralized within one area or by insisting every local division adhere to one set of standard software. With purchasing, this policy is at the discretion of the agency, but leasing and seat management agreements are naturally centralized because the vendors must adhere to requirements set forth in a contract.

Upgrading to the latest version of software is an option that can be incorporated into a seat management program. If an agency doesn't take advantage of that option, then it is responsible for performing all upgrades, whether physically or over the network, and for managing software licenses, requiring significant management overhead.

Installation/Maintenance/Support

When purchasing or leasing, the supplier configures and bench tests equipment and internal or outsourced technical support staff must install, maintain, and repair it. Of course, employers do not want to keep staff on the payroll if they can't keep them occupied all the time, so agencies usually give technical support duties to staff who are already working on other jobs. This makes support secondary and sometimes staff cannot satisfy all trouble requests. Seat management shifts *all* of the setup and support responsibilities to one contractor – agency staff does not have to worry about day-to-day support tasks.[9]

Asset Management

It is impossible to know the costs of IT without tracking what equipment there is on site, where it is, what department it is being billed to, and whether or not it is sitting in storage. In many cases, monitors, printers, keyboards, and the like are stowed away, unknown to the owner, on some shelf or under a desk. Asset management allows the owner to have control over the enterprise to get rid of the surplus and save space and money.[10] Without asset management, there may be internal ledger mistakes – an asset that is transferred to another department/location or is taken out of service could still be attributed to the previous department.

If an agency purchases or leases a computer, they are responsible for all asset management, including tracking incoming PCs, MACs (moves/adds/changes), and outgoing (disposed of) PCs. They can either take care of management themselves or outsource the function. With seat management, the contractor would track incoming inventory, MACs, and outgoing inventory since it belongs to them.

This benefit of seat management is extremely useful for agencies because they typically have difficulty keeping track of their assets. For example, Virginia Department of Transportation (VDOT) tracks its computer assets with the Department of Accounts' Fixed Asset Accounting and Control System (FAACS). In the past, audits have been between 25 and 30 percent accurate. When physical inventory was taken, equipment was found on VDOT property that was not on the FAACS database, and some equipment that was on the FAACS database was not located physically. In 1998, VDOT had between eight and ten years of surplus equipment in its facilities, and they finally hauled away five trailer loads of it. VDOT will continue to pay the Department of General Services to warehouse it for them until disposal.[11] Where did the problems begin? The main problem is the lack of centralized human resources to track equipment from delivery to disposal and everything in between (including MACs and terminated staff).

Disposal

State agencies and institutions face a number of obstacles with the disposal of obsolete PC desktops. Most warehouses have no climate control equipment for storing the sensitive desktops. Either renovations need to be made to make the warehouse suitable

for storage, or surplus equipment is subjected to extreme temperatures and humidity levels, resulting in damage to its components.

Some agencies have no warehouse for storage. They may use conference rooms and office space. When equipment is stacked up in hallways and aisles, or under desks, employees are subjected to safety, health, and fire hazards, as well as a lack of morale from the messy work environment. When the agency runs out of space for its employees, they may lease space in other buildings or they may lease storage units or trailers for their surplus PC desktops. Not only does this practice cost money (office space is roughly $10-$12 per square foot per year), but it can also spread employees apart, costing more money in telephone and network connections and time wasted in employees traveling from building to building.

There are also costs associated with moving surplus PC desktops. Staff time is used to move equipment from location to location, and PCs can be damaged from the many moves. To further devalue the asset, many agencies take apart and use some internal components such as memory or disk drives, leaving the PC desktop non-functional.

The result of unsuitable storage, moving desktops, and borrowing parts is a loss of most or all residual value that the PC desktop had when it was no longer needed. For example, a three-year-old PC can still be worth 20 percent of its value if it is auctioned immediately. If it sits in storage for an additional four or five years in poor environmental conditions it may only be worth one to three percent of its value, if anyone wants to buy it at all.

In summary, the cost of surplusing and disposing of PC desktops could range from $100 to more than $500 per unit, when factoring in the loss of residual value, cost of warehousing or leasing space, staff time to move equipment, threat of worker's compensation from safety issues, and loss of staff productivity due to sagging morale.

Seat management helps reduce TCO and PC desktop disposal headaches. The vendor owns the asset, so when the time comes to replace it, the vendor takes care of the disposal. As the market grows for used brand-name PC desktops, the seat management contracts will become even more attractive as vendors are able to reduce their costs due to equipment resale.

Use Of Internal IT Staff

Information technology staff is increasingly difficult to find and keep, which forces existing staff to pile on extra duties. When GartnerGroup held its annual IT Expo in 1998, it noted that IT work will grow almost 50 percent between 1998 and 2003 without a major increase in skilled personnel.[12] According to a 1998 InfoWorld reader survey, the Number Two IT concern, just behind Year 2000, is staffing. Those same readers anticipate the problem will get worse because of retirement and the fact that fewer college students are making IT-oriented career choices.[13]

This means all IT staff will increasingly be in high demand, including those already at work in the government. Private industry is not as limited by budget restraints, and can offer government staff pay and benefits with which the government just cannot compete.[14] If internal staff members feel like they are overworked, underpaid, and that their true talents are not being explored, then losing government staff to private industry can become a reality.

The best way to keep employees is to take care of them and one way to take care of employees is to give them the opportunity to advance in their careers, or even to help keep them focused on what they were hired for. According to Federal Data Corporation's CEO and vice chairman Daniel R. Young, the U.S. Navy hired engineers for developing maritime warfare systems, and they ended up supporting desktops instead. The engineers were not able to perform the jobs they were hired for.[15] By choosing seat management, internal IT staff is free to focus on higher-level work rather than the day-to-day task of PC desktop support, which the contractor would take over. Giving internal staff the opportunity to grow actually aids in employee retention, and saves the government the costly task of recruiting and training a new work force.

IV. Current Seat Management Programs

In theory, there are many benefits to implementing a seat management program. As great as it sounds, agencies still want to see the plan in action. According to a 1998 Association for Federal Information Resources Management (AFFIRM) survey of federal government IT/finance officials, 48 percent said they are undecided about implementing seat management.[1] It will require some success (or non-success) stories to get government IT managers to decide on seat management.

In this chapter are case studies of four seat management programs (one state, three federal) that are already in progress. They include: the Virginia Department of Transportation (VDOT) and Virginia Retirement System (VRS) Services for Information Technology/Enterprise Architecture (SITEA) pilot, the General Services Administration (GSA) Seat Management contract, the National Aeronautics and Space Administration (NASA) Outsourcing Desktop Initiative for NASA (ODIN), and the Treasury's Bureau of Alcohol, Tobacco, and Firearms (ATF) Seat Management program.

Also mentioned in this chapter are some state and local projects that are still in the early stages. They include University of Virginia (UVA) Desktop Computing Initiative (DCI), The College of William and Mary Equipment Service Program (ESP), Virginia Department of Corrections (DOC) Enterprise Management, the City of Philadelphia, Pennsylvania, North Carolina Department of Health and Human Services (DHHS), and the University of Texas Medical Branch (UTMB).

VDOT/VRS's SITEA Pilot

In late 1998, VDOT/VRS awarded its SITEA contract to Halifax Technology Services Corporation (HTSC) on a pilot basis. Current per-seat, per-month prices range from $85.50 to $179.00 ($1,026 to $2,148 per year) for desktop machines and laptops, more for servers. Those per-month prices include hardware/operating system acquisition, configuration, installation, user orientation training, upgrades, maintenance/support, technology refreshment at 36 months, asset management, and disposal. Per-seat charges are higher if purchased on a 24-month or 12-month refresh cycle. Service Level Agreements (SLAs) include five days for installation of forecast PCs, 24-hour fix-or-replace response for Level I service calls (desktops and laptops), and 4-hour fix-or-replace response for Level II service (servers). Additional services require additional fees, such as SLA escalation from Level I to Level II ($75), MACs ($55), data transfers, class training (outside of user orientation), and addition of user-specific software ($55). As part of the agreement, users are expected to not move their desktops, download screen savers, add unapproved software, or change standard software. Since VDOT has its own Central Help Desk, users experiencing problems do not contact HTSC directly.

HTSC e-mails one invoice, itemized and separated by District/Division. The SITEA Project Director forwards the invoice to the appropriate Districts/Divisions and arranges payment for the entire bill. Districts/Divisions have 10 working days to reconcile and any corrections are applied to the next invoice. Charges are then forwarded to the appropriate

District/Division ledger. In this way, the Project Director has control over spending, and invoicing is simplified.

VDOT/VRS can access the HTSC Service Call Management System at any time to generate reports to see if customers are getting SLA-quality service or if specific equipment is in need of too much service and should be deemed defective. VDOT/VRS can adjust payment amounts accordingly when HTSC does not meet their contractual obligations.[2] All ordering and service calls are Web enabled for client convenience.[3]

Although SITEA's pilot is not yet complete, many VDOT users are already reporting to be pleased with the change. In March and April 1999, 400 Sun CADD workstations were replaced in VDOT's Location & Design, Structure & Bridge, and Traffic Engineering Divisions. Used workstations were donated to colleges and universities. The installations took place over several weekends, and users were thrilled to come in on Monday morning and find new PCs.[4] In July and August 1999, 158 laptops and desktops were installed in the Right of Way Division.[5] Smaller-scale installations were also successful. Currently, there are about 1,530 seats on the SITEA contract in all nine VDOT Districts and the Central Office[6]; trouble calls have been at a minimum, and all SLAs have been met. VDOT/VRS expects to complete their pilot analysis in fall 1999.

VRS has different needs from VDOT. Their workstations are unique, with a choice between a flat screen and an image workstation with a high-resolution monitor. Refresh rates are higher than the 36 months that VDOT usually uses – either 12 or 24 months. Other than the equipment differences, VRS's SITEA policies are much the same as VDOT's. VRS currently has 56 SITEA machines installed, and VRS users are satisfied with HTSC's responsiveness. All SLAs have been met.[7]

GSA's Seat Management

In summer 1998, GSA announced that eight prime contractors were awarded its Seat Management contract, which would give the contractors the opportunity to compete to provide services to any of GSA's customers who opt to use the contract. GSA's Federal Technology Service (FTS) was the first agency to try the contract, selecting Litton/PRC as its contractor. The contract began in May, and Litton will replace 2,000 to 2,500 seats over the next six months. Over the next two years, GSA hopes to use the contract to replace the seats of some 14,000 employees with standardized Dell stations. Currently Litton is asset-tagging GSA-owned PC desktops in the District of Columbia. According to GSA Office of the CIO representative Jon Desenberg, "it's been very unobtrusive."[8]

GSA has announced its per-seat TCO as around $8,400, but this figure covers internal costs such as development as well as the Seat Management contract, so it isn't a real cost comparison to other programs.[9] Services covered include PC desktop acquisition, configuration, installation, user orientation training, upgrades, help desk, maintenance/support, technology refreshment at 36 months, asset management, and disposal.[10]

Outsourcing Desktop Initiative For NASA

Like GSA's Seat Management, ODIN is a multiple award contract. In 1998, NASA chose seven vendors for the master contract. All NASA owes them is a one-time $1,000 catalog order – beyond that it is up to each NASA center to make a decision on how much they want to buy and which vendor to buy from. Through GSA, the ODIN contract is open to other agencies besides NASA – all the agency needs to do is issue a delivery order against the contract and evaluate proposals from each of the seven vendors. Services covered are hardware/software acquisition, licensing, installation, maintenance, shared services (print, e-mail, file), network access, asset management, IT security, help desk support, training, system administration, network support, technology refreshment at 36 months, and one MAC per seat per year. Telecommunications connections are also available. The vendor is responsible for choosing products, staffing, and maintaining configuration. NASA is responsible for choosing standards, establishing configuration control boards, and making router, hub, switch, and cable upgrades to support the seat management products.

NASA's Goddard Space Flight Center (GSFC) has already taken advantage of the contract. General purpose (GP) seat prices range from $1,900 to $3,400 per year. The CIO announced that the pre-ODIN seat cost for a GP1 seat (the most basic general purpose PC desktop) was $2,940 per year – ODIN's GP1 is $1,900. As part of the $1,900 price, Internet and network access costs alone work out to about $12 per month. NASA's Jet Propulsion Laboratory (JPL) also has a seat management contract, which was awarded before ODIN.

Mark Hagerty, ODIN Program Manager, says that lessons learned for future use include allowing time for transition and making sure seat management plans are compatible with other IT activities, such as the implementation of new systems. Altogether, though, everything is on schedule and users are pleased. NASA recently awarded task orders for John F. Kennedy, Lyndon B. Johnson, and John C. Stennis space centers.[11]

ATF

ATF, a division of the U.S. Department of Treasury, was really the first federal agency to implement a seat management program. GSA had announced an intention to create a master contract, but ATF could not wait – they needed a quick way to get every user working on one platform without much up-front money. There were many remote users, a small IT staff, and dated technology (they were still using 286s). ATF used GSA's Federal Supply Schedule to put together a program of their own and chose Unisys as the vendor. From January to April 1998, Unisys replaced 4,000 seats at 188 offices nationwide, including PC desktop and office hardware, software, network and stand-alone printers, laptops, and cabling.[12] They agreed upon a 36-month refreshment period and a 24-hour restore for the SLA on non-laptop PCs. For laptops, there is an Advance Exchange program. Unisys sends a replacement component by Federal Express Overnight. The customer returns the old part within three days. The per-seat cost of ATF's contract is about $3,400.[13]

ATF's SLA spelled out service levels, transition strategies, performance measures, and action taken when the vendor does not meet SLAs. Users had to be trained and their seats had to be operational before monthly fees were paid. As a result, when Unisys had some initial trouble with the rollout and could not meet SLAs by the deadline, ATF did not have to pay until the SLAs were met.[14]

ATF's success has encouraged the Treasury Department to try seat management; in February, they issued a task order for GSA's Seat Management, making them the second agency to use the GSA contract.[15]

UVA's Desktop Computing Initiative

UVA, like other colleges and universities, has a challenge to address that is different from that of most other public bodies. Most government entities want to standardize their hardware and software to cut maintenance costs and increase interoperability. Colleges and universities, however, must address a wide range of specialized needs for such varied academic areas as medicine, science, art, and mathematics. Carefully tailored seat management can accommodate these issues, and UVA is adapting many seat management elements to address the varied needs and still maintain some degree of standardization through its Desktop Computing Initiative (DCI). Other goals of DCI include regularized upgrades, a stabilized budget, a recognizable TCO, and enabling support staff to work in higher-level areas where their talents may be put to better use.

To address the diverse needs of students, faculty, and staff, DCI will offer Wintel (Windows 98 and NT) and Apple platforms, desktop and notebook, and standard and high-performance configurations. UVA also has platform-independent storage space available through its Home Directory Service. UVA hopes to meet at least 80 percent of its faculty and staff needs and nearly all student needs by offering the various platforms. DCI is not for specialized research computing.

By fall 1999, UVA will have completed the vendor selection process of the DCI contract and the program's implementation will begin. The annual per-seat fee will cover configuration and software loading, delivery, installation, user orientation, and removal of old PCs. Data migration and customized training are optional services. PC desktops will be offered through lease with technology refreshment or through a purchase plan, and all products will have a three-year warranty. All departments are encouraged to use DCI, but it will not be a mandatory requirement. DCI computers will be offered to students through Cavalier Computers, UVA's on-site computer shop. Cavalier Computers will stock some on-site parts and "hot" spares. Vendors will also be required to donate a limited number of machines for students who cannot afford them and qualify through the Office of Financial Aid.

UVA has volunteered its DCI program as a pilot project in higher education for COTS review of many of the core concepts of seat management. The university will share its TCO methodology, its assessment of higher-education-specific needs and cultural issues, and its progress toward many of the goals noted in this report.[16]

William And Mary ESP

The College of William and Mary released an RFP early in 1999 for seat management services. They awarded their Equipment Service Program (ESP) contract to Dell. Under ESP, Dell supplies its brand of computers and peripherals that are available under the DellPlus program. Users are encouraged to order the William and Mary standard configuration desktops and notebooks, because they are ready for the William and Mary network and spares are readily available for repairs that must be expedited. However, any Dell model can be ordered with departmental justification. Users may load software other than the standard, with the understanding that William and Mary or Dell may not be able to support it.

The SLA on parts and labor for hardware problems is next day. Users who need support call the William and Mary technical support center, who determines if the problem is with hardware or software and contacts Dell for hardware support.

The annual per-seat costs for three-year cycles are $525 for desktops and $875 for notebooks. The price covers hardware acquisition, configuration, image loading, installation, refreshment, and support. Data transfer services are available. Nonstandard models and peripherals are priced accordingly.[17]

As of September 1999, Dell has installed approximately 300 machines and the overall transition has gone smoothly. William and Mary does, however, stress the importance of designating staff to perform contract management to ensure the vendor performs satisfactorily.[18]

Department Of Corrections Enterprise Management

The Virginia Department of Corrections (DOC) is finalizing an RFP for a comprehensive menu of enterprise services for its desktop, server, and communications network environments. The enterprise management system will provide the functionality and information for help desk, network management, event management, software distribution, operating system installation and configuration, inventory and asset management, software distribution, remote control and diagnosis, backup and recovery, virus protection and security, remote control of desktops, immediate notification and escalation of all critical events via paging and e-mail, software metering, backup, and disaster recovery. In addition, the RFP also includes conventional seat management features such as hardware acquisition, installation, maintenance, refreshment, and disposal. Under the provisions of the RFP, DOC technical personnel will share in the responsibility for technical support with the selected enterprise-services vendor.

As the state's largest agency, the Department of Corrections currently has a variety of information technology service providers for statewide network management, help desk operations, telephone/telecommunications support, and information security. DOC has begun a transformation in its organizational processes and its business conduct. A new ATM network underpins major initiatives for telejustice, telemedicine, and distance

learning. Powerful desktops, laptops, and network servers will deliver Internet access, software functionality, and business information that were heretofore not feasible. DOC will implement a Web-enabled suite of applications for finance, human resources, offender management, manufacturing, and general administration.

DOC has volunteered its enterprise management services as a pilot project. The successful outcomes of the project can model a services-acquisition strategy for other agencies seeking to build and/or modernize their technological infrastructure, in spite of current in-house shortages of technical personnel.[19]

City Of Philadelphia, Pennsylvania

In spring 1999, the City of Philadelphia, Pennsylvania awarded a 15,000-user PC desktop management contract to Intellisource Information Systems. It is not a full seat management contract; it does not include technology refreshment, for instance. The program does, however, shut down the duplicate PC desktop procurement and services contracts the city had, and they left the contract open to a technology refreshment option at a later date. Philadelphia hopes to save $800,000 annually from the contract.[20]

North Carolina Department Of Health And Human Services

The North Carolina Department of Health and Human Services (DHHS) is working with that state's Department of Information Resources to develop an RFP for a statewide seat management program for all North Carolina state agencies. Phase One is in response to an immediate DHHS need to replace 4,000 PC desktops that are not Year 2000 compliant; it will be simply for procurement and technology refreshment. Future phases will include deployment planning, help desk support for commercial-off-the-shelf applications, security, and disaster recovery. DHHS expects to eventually move its own 20,000 employees and an additional 65,000 employees at 100 county social services offices in North Carolina to the program.[21]

University Of Texas Medical Branch

University of Texas Medical Branch (UTMB) at Galveston is negotiating a contract with Cable & Wireless Omnes to provide its 8,500 users PC desktop acquisition, PC/LAN support, Internet and e-mail support, remote access, help desk, technology refreshment, and data, voice, and video communication services. Fifty-two displaced UTMB employees have been offered positions with Cable & Wireless Omnes, and many will continue to work at the UTMB site.[22]

V. Procurement Of Seat Management

Currently, the government uses separate procurements for obtaining PC desktop equipment, networking services, technical support, help desk, and training.[1] Seat management changes all that – it consolidates the effort into one procurement, saving time and administrative burden. But there is a number of issues to consider when procuring for seat management.

Choices

What services are needed? Is it simply the hardware acquisition and services, or centralized help desk and software license management as well? Or should there be a modular contract – with prices for all services listed as an option, with no obligation to buy them all? It is important to realize that many aspects of seat management are flexible, and agencies must determine their needs. Here is a list of possible services:

- Hardware acquisition
- Software acquisition
- Desktop installation and MACs (moves/adds/changes)
- Infrastructure planning
- Software and image loading and configuration
- Testing
- Maintenance/repair
- Upgrades
- Training
- Asset management
- Technology refreshment
- Disposal
- Software license management
- Central help desk support
- Network design and
- installation
- Communications capability
- Maintenance of existing assets
- Inventory of existing assets
- Integrated enterprise management services

Any combination of these and other services is possible; the deciding factors are the level of service a customer wants and how much they are willing to spend. Many agencies prefer to outsource for hardware acquisition, asset management, and support only, but others want complete responsibility shifted to the contractor, such as management of software licenses. VDOT/VRS is currently negotiating a license agreement with HTSC. Licensing is tricky and some IT departments may prefer to stay out of it altogether. The same logic applies to maintenance or asset management on existing assets. If internal staff are redirected to higher-level duties, then why not give over the responsibility to the contractor, and stay out of it? Of course, some IT departments may be well equipped to

manage licenses or maintain existing assets, and may wish to keep those items in house. Agency needs vary so much that it does not benefit to make service offerings too rigid. No customer has identical needs, so flexibility is key.

Tiers

The word *tier* is a GartnerGroup term used to describe a quality level associated with every brand of computer. Tier 1 brands, such as IBM or Compaq, have the greatest residual value, whereas Tier 3 brands have the lowest residual value. When purchasing, many companies and individuals alike look at lower tiers, often buying generic "white boxes," because the initial price is cheaper.

When entering into a seat management agreement, though, agencies may find that the price of using higher-tier equipment is about the same as the "white boxes." With a seat management agreement, contractors own the equipment – they do not want to own low-quality machines. First of all, the less reliable the machine, the more support the contractor must provide on it, and the more support the contractor must provide, the smaller the profit on the service will be. Second, there is a growing market in selling used machines, especially Tier 1, which has the greatest residual value. Therefore, it is in the contractor's best interest to use pricing to encourage the agency to have high-quality equipment.[2]

OEM Or Integrator?

The next thing to think about is whether to use an OEM (Original Equipment Manufacturer) or an integrator to provide services. Many OEMs bundle PCs and services in a per-seat price. However, when entering into a contract with an OEM, remember that the manufacturer usually carries *one* brand: their own. OEMs usually offer other brands of printers or peripherals, but they want to sell *their* computers.[3] OEMs also typically provide a rigid set of services, and may not offer flexibility. There are a few exceptions to OEM product inflexibility; for example, IBM Global Services uses a variety of PC brands.[4]

Integrators, on the other hand, carry a variety of brands, and unless the agency specifies a brand in the RFP, integrators may be responsible for choosing the best brand at the best price that meets the specifications requested by the agency. They also tend to be more flexible, providing a wider array of services and options, because the focus of their business is service, not goods.

One Or Multiple Vendors?

VDOT/VRS's SITEA deals with only one vendor, Halifax Technology Services Corporation. However, GSA's Seat Management and NASA's ODIN both offer customers a number of vendors to choose from. Wouldn't it be simpler to choose *one* supplier? Yes, and no.

It may be simpler for a small, individual agency to go with one vendor for a seat management program. It's one invoice, one contact to call when service is needed, and one source to hold accountable. But when a large agency or group of agencies gets together for a procurement, it may benefit them to have a multiple award contract.

In the case of GSA and NASA, a group of vendors is qualified to do business with the government, after proving that they are best qualified to provide all the services requested and the not-to-exceed pricing has been established. Then agency customers may issue task (or delivery) orders to all the preapproved vendors. In the case of NASA's ODIN, a short period of *due diligence* is observed; agencies work with vendors by interviews and site visits to give vendors an accurate picture of their needs. This makes implementation, transition, and price proposals more accurate and lower, since vendors do not have to make their prices unrealistically high as a safety net.[5] The vendors agreed in the master contract that they could not protest task order awards, so agencies can make an award without worrying about having to reissue the RFP because of protest.

Multiple award contracts work well for agencies that are spread out over a large geographical area or multi-departmental agencies. They also work well for cooperative procurements involving many agencies, for instance, one that would blanket the Commonwealth of Virginia. Individual agencies still have the freedom to choose their supplier, but much of the procurement work has already been done, such as the prequalification and the statement of work. Agencies usually pay a small fee to the awarding agency to use the contract, but it is often worth a small fee to eliminate much of the administrative burden of beginning an RFP from scratch. Going with multiple vendors assures each agency that there will be "enough vendor to go around" and encourages fair competition, but it also limits the number of responses a procurement official must sift through, saving time and money.

Vendor Prequalification

Another way to limit the number of proposals an agency must sort through is to prequalify vendors. The opportunity to prequalify would be given to any contractor who is interested in providing IT services to the requesting agency or group of agencies. Their applications would be evaluated on the following criteria:

- The contractor's financial ability to provide services (including ability to serve high capacity or ability to provide services across a wide geographical area),
- The contractor's experience in performing the specified services,
- Verification that the contractor has not been in breach of contract for government or nongovernment customers for the past 10 years,
- The contractor's compliance with terms and conditions of past contracts,
- Verification that the contractor or representative has not been convicted within the past 10 years of a crime related to contracting, and
- Verification that the contractor has not been debarred from bidding or contracting for any government body.[6]

According to the Virginia Public Procurement Act (VPPA), contractors can only be denied prequalification if they fail to meet one or more of those requirements. Therefore, prequalification would not rule out as many vendors as awarding a multiple award contract, and agencies would still have to issue an RFP and go through the same evaluation procedures as they usually would, but at least agencies would be assured that each prequalified vendor has passed some measure of compliance.

If an agency chooses to observe due diligence, holding vendor prequalification may be a good idea, because it would limit the number of vendors touring an agency to assess the site. A 1997 rewrite of Federal Acquisition Regulation Part 15 encouraged a two-phase selection process to narrow vendors; vendor prequalification would be the first phase.[7]

Efficient Procurement Methods

Individual agencies can issue their own procurements, but some agencies may be able to get more "bang for their buck" by considering a cooperative procurement. This is a process by which two or more agencies procure together. Cooperative procurements can save the administrative costs of procurement of course, but they also enable agencies to pool their buying power. If several agencies are concentrated in the same geographical area, the vendor's savings in travel and other costs can be passed on to the agencies.[8]

There is one stipulation. Cooperative procurements list all the public bodies interested in the contract *in the RFP*. When one agency uses another agency's established contract to get the price discounts, it is known as "piggybacking." This practice is prohibited by the Department of General Services (DGS).[9] Besides, since the agencies did not get together during the proposal process, the prices quoted were based on one agency, defeating the buying power of cooperative procurements.

Another way to consolidate buying power is to use a procurement vehicle, like a governmentwide agency contract (GWAC). This method saves time and money because the RFP writing, scoring, price negotiation, and other administrative duties are performed by the agency managing the vehicle. GWACs are indefinite delivery, indefinite quantity (IDIQ) multiple award contracts managed by one agency that does a good deal of the work for agency customers for a fee. Agencies can be certain that the vendors approved for GWACs meet strict qualification standards. Through vehicles, agencies can also get help writing specifications.[10] Some GWACs that are currently in use include GSA's Seat Management and Multiple Award Schedule, NASA's ODIN, and the U.S. Department of Transportation's (USDOT) Information Technology Omnibus Procurement (ITOP).

Both federal and Virginia policies (*Agency Procurement and Surplus Property Manual*, or *APSPM*, Section 4.33) prevent state and local governments from using GSA for procurement. One reason is that no one has done a sufficient study to determine how such massive contracts will impact state and local businesses. The Code of Virginia encourages the use of state and local businesses whenever possible, but GWACs are typically awarded to very large companies who can supply services to the federal government. Other reasons GSA is prohibited are that GSA's terms and conditions are

too strict to accommodate some state requirements and there are no enforceable state dispute-handling mechanisms.[11] The GSA ordering restriction prevents Virginia state and local agencies from using GSA's Seat Management and NASA's ODIN, which is offered to non-NASA agencies through GSA. ITOP is open to state and local governments, but once again, some of the same problems that prevent states and localities from using GSA are still present, such as the impact on state and local businesses and lack of dispute-handling mechanisms that can be enforced in state courts.

One way to solve the problem of not being able to use GWACs and to incorporate a variety of efficient buying methods would be for the Commonwealth of Virginia to create its own vehicle, a multiple award contract that is awarded with the interests of several agencies in mind. The state could leverage its buying power to achieve competitive pricing, and much of the procurement work would be already completed for agency customers wishing to use the contract.

The state of California has already implemented its own program. The California Multiple Award Schedule has awarded contracts to hundreds of vendors, using GSA schedules as the base for pricing and terms and conditions, but adding advantages such as a simplified price adjustment process. This Multiple Award Schedule covers a wide variety of information technology services, and is not seat-management specific.[12]

How Virginia Procurement Laws Accommodate Seat Management

On the whole, seat management contracting is not forbidden in the Virginia Public Procurement Act (VPPA) of the Code of Virginia or in the *Agency Procurement and Surplus Property Manual* (*APSPM*). *APSPM* 4.18 describes the difference between a service, such as seat management, and leasing:

> Renting 1,000 folding chairs to be picked up by state employees in state vehicles at the contractor's place of business, used and returned is an acquisition of goods. Hiring a contractor to deliver, setup, remove, and haul away the same 1,000 folding chairs is a labor intensive contractual service.[13]

Also *APSPM* Annex 4-C talks about "Make or Buy" Analysis Procedures, which were developed by Department of General Services Division of Purchases and Supply (DGS/DPS) along with Department of Planning and Budget (DPB) and Department of Information Technology (DIT) to determine if certain activities currently provided by government could be better provided by the private sector. It lists certain criteria for services that may be candidates for contracting:

- Service is tangible,
- It is available from the private sector,
- It involves "repetitious or routine activities,"
- It requires "technical/specialized skills," and
- It is "susceptible to changes in demand or funding ... or the service is now provided using temporary employees."[14]

Annex 4-C also addresses making cost comparisons, determining potential sources (two or more), determining exit procedures, and considering impact on current employees. All these factors apply to seat management.

Section 11-46 of the VPPA permits agencies to prequalify vendors for specific types of projects, as long as notice for the prequalification is issued in writing in advance of implementation to allow contractors a fair opportunity to apply for prequalification. However, Section 11-46.B states that agencies may only deny prequalification to a vendor under specific circumstances, one of those circumstances being that the "contractor does not have appropriate experience to perform the construction project in question."[15] It may be better to omit the word *construction* from that sentence, making it possible to exclude contractors from prequalification because they do not have the experience providing the needed service. This would help to sort out the best providers of seat management.

There may be a problem, however, when it comes to the subject of multiple award contracts. The purpose of a multiple award contract is to narrow the number of responses agencies must evaluate, to ensure that each offeror is qualified to perform the work required, and to eliminate the possibility of protest on individual task orders. *APSPM* 3.18 requires that any procurement over $15,000 must be posted to the public.[16] Would a task order within a multiple agency contract be considered a separate procurement altogether or could the requirement be posted only to vendors on the contract, who could then make their offers?

An examination of state Bodyshop contracts may answer this question. In them, multiple vendors are selected to fulfill each category requirement. When an agency wants to purchase a service off the contract, they can go directly to any vendor listed on the contract or ask all vendors in that category to submit their solutions and the agency would choose the best one.[17] This process parallels the act of submitting a task order against a multiple award contract, with one exception: Bodyshop contracts have set pricing and the proposed multiple award contract has not-to-exceed pricing, and after due diligence, the price is usually further reduced. It seems possible to make a statewide contract multiple award.

Some agencies have thought of using government-owned equipment as trade-in to help fund seat management PC desktops.[18] This is a difficult issue to solve. *APSPM* 12.7.f(1) allows for trade-in of equipment if the old and new items are used for the same purpose, if the offer for the old equipment is comparable with current market value. However, it also states that the trade-in of state property cannot be used to help pay for a service.[19] Proponents of trade-ins argue that agencies would be exchanging old PCs for new PCs for the same users. But seat management is a *services* contract as defined by *APSPM* 4.18, so some procurement officials argue that government PC desktops cannot be used as trade-ins. It may be advisable to reword *APSPM* 12.7.f(1) to specifically allow trade-ins.

Personnel/Work Force Transition

One of the benefits of seat management that government officials have touted is the ability to redistribute their personnel into higher-level areas. With existing programs such as GSA, the loss of jobs has not been an issue. According to GSA Office of the CIO representative Jon Desenberg, internal staff are needed and encouraged to stay on to work in areas such as Web design and applications development. GSA has advertised very heavily to its staff that the realignment should be viewed as a promotion or new opportunity. However, if anyone really wants to continue day-to-day support tasks, Desenberg points out that contractors have as much trouble finding qualified staff as agencies do, so contractors are typically very happy to hire them, with no reduction in pay or benefits (and in some cases an improvement).[20]

OAO Corporation, the seat management contractor chosen by NASA's JPL, hired about 60 displaced JPL staff with no pay or benefit cuts to them. OAO agreed to this in the contract. OAO has sponsored "in-reach" programs to learn more about their new staff, assess their abilities and needs, and keep them happy and effective workers.[21]

Another thing to think about is that an agency cannot *completely* outsource a function. Agency staff must remain to maintain quality assurance and manage the contract. Existing personnel can be retrained to perform these functions.[22]

Funding

In some ways, funding for seat management will be simple. After all, seat management bundles equipment and services into *one* monthly fee, giving agencies the opportunity for budget planning. Agencies can apply for the proper amount of money by forecasting how many existing seats (over three years old) for the fiscal year will need to be converted to seat management seats and by forecasting new staffing/outsourcing needs. Agencies can then set aside the approved budget and use that money for the monthly payment that makes up the seat management commitment. GSA suggests using operating and maintenance funds rather than capital budgets because they are more flexible on long-term commitments.[23]

However, can agencies afford to realign personnel into other areas *and* implement seat management? This is the biggest challenge of funding seat management, and it is difficult to predict what the legislature would say. One thing agencies can do when asking for funding is to prove that there are areas in IT where personnel are needed, rather than just making up jobs to keep them. The bottom line is that it is important to think about what is going to happen to personnel during a seat management transition and to help personnel with that transition.

VI. Seat Management Workgroup Discussions

Since November 1998, the COTS Seat Management Workgroup has been working to resolve seat management procurement issues such as governmentwide agency contracts (GWACs), funding, and what services to include.

Governmentwide Agency Contracts (GWACs)

As mentioned in Chapter V, creating a procurement vehicle for the Commonwealth of Virginia is a possible way to address seat management procurement needs using the buying power of the entire state. This would encourage Virginia government to use Virginia businesses while alleviating some of the procurement burden that individual agencies would deal with.

It may be a good idea to use features of existing vehicles as a model for a Commonwealth vehicle. The Workgroup has discussed three federal GWACs: GSA's Seat Management, NASA's ODIN, and USDOT's ITOP/ITOP II. Each of these GWACs charges a fee to the using agency, typically around one percent of the total contract.[1]

GSA's FTS offers a Seat Management program in which agencies request task orders from the eight prime vendors listed in the contract. The contract lists not-to-exceed prices, and vendors submit their customer-specific implementation plans and price proposals based on information from the task orders. After task orders are awarded, vendors verify customer inventory and adjust task orders as necessary. The contract base is five years with one five-year option. GSA's Seat Management includes asset deployment and disposal, asset management, technology refreshment, infrastructure management, maintenance, help desk support, migration of telecommunication services, engineering/analytical support, operations and maintenance support, and program management of PC desktops, servers, printers, and communication devices, as well as the management and maintenance of existing assets.[2]

GSA is also responsible for administering NASA's ODIN contracts to agencies other than NASA.[3] ODIN is a multiple award contract, with each division/center using the pre-awarded vendor of their choice. The difference between ODIN and GSA is that ODIN is intended to satisfy specific seat configurations while GSA is more flexible to meet the needs of many agencies.[4]

Seven vendors were chosen for the ODIN contract. All NASA owes them is a one-time $1,000 catalog order; beyond that it is up to each NASA center to make a decision on how much they want to buy and from whom. Each delivery order (task order or service agreement) lasts up to three years, with one three-year option. Service categories include three types of General Purpose (GP1, GP2, GP3) and three types of Scientific and Engineering (SE1, SE2, SE3) computers, two levels of maintenance on NASA-owned computers, Network Attached Devices (wall jack with some services), four types of servers, and communication services (phone, radio, public address, internal TV/Video, fax, remote communications).

Not-to-exceed pricing was stated in the master contract. During each center's Delivery Order Selection Process (DOSP), the requesting center prepares an inventory and ranks selection criteria. Then there's a due diligence period; vendors are given an agency contact and allowed to examine the facility's inventory and infrastructure. Due diligence paves the way for a more accurate implementation plan, transition plan, and price model, as opposed to GSA's strategy of vendor verification of inventory *after the award*. The next steps are oral presentations, vendor selection, and issue of delivery order. The seven vendors cannot protest the customer's selection. At each refreshment period, the vendor sends a proof-of-concept product to NSTL (National Software Testing Laboratories), an independent testing facility. The lowest-end seat (GP1) must meet at least 50 percent of the NSTL standard. Vendors usually exceed those benchmarks.

Services covered in ODIN are hardware/software acquisition, licensing, installation, maintenance, shared services (print, e-mail, file), network access, asset management, IT security, help desk support, training, system administration, network support, technology refreshment, and one MAC per seat per year. The vendor is responsible for choosing products, staffing, and maintaining configuration. The government is responsible for choosing standards, configuration control boards, and making router, hub, cable, and switch upgrades to support products.[5]

ITOP/ITOP II is a procurement vehicle through the USDOT TASC (Transportation Administrative Service Center) that is open to federal, state, and local governments. ITOP limits hardware/software acquisition to 25 percent of the total cost of the service,[6] so it may not be conducive to seat management, but ITOP II rewords that clause to say that hardware and software may be acquired to support a full IT solution-based package. It goes on to list seat management specifically as a subsection of its SOM (Systems Operations and Management) functional area, with 13 contractors approved to supply it. However, pricing is determined by labor hour, making it different from typical seat management performance-based contracting agreements.

ITOP II defines Seat Management as providing the following services priced per seat:

- Asset management,
- Infrastructure management (network and systems management),
- Installation,
- Maintenance,
- User support,
- Training,
- Design, and
- Processing support for mainframes, minis, and microcomputers.

With ITOP II, task orders over $2,500 are competed, which means notice is sent to all the vendors within the requested functional area. ITOP II establishes not-to-exceed labor-hour rates, and vendors are expected to use those rates as guidelines for providing cost proposals. After the Task Order Request for Proposal (TORFP) is issued, vendors submit cost and implementation proposals in the manner requested by the agency; oral proposals

are preferred, but written proposals should have page limitations. The customer and the ITOP Special Project Office (SPO) evaluate the proposals and the SPO approves the decision and awards the task order. Federal customers can get TASC to process all invoices for an extra fee, but state and local customers must handle invoices themselves.[7]

So far, ITOP II has not been used for seat management. ITOP II was released in February 1999, so it is relatively new and it has not had as much media attention as GSA's Seat Management. ITOP II was developed in response to some of TASC's most popular requests, including seat management.[8]

Funding

The Workgroup, particularly members from educational institutions, has examined the feasibility of using funding programs to pay for seat management. Evie Whitley, from the Department of the Treasury, talked about two options: the Equipment Trust Fund (ETF) and the Treasury Board Master Equipment Leasing Program (MELP).

Many educational institutions are already using the ETF to fund computer and scientific equipment. ETF offers five-year bonds; during the five-year term the equipment technically belongs to ETF and serves as collateral for the bonds. Two drawbacks to using the fund for seat management were discussed: first, contractors own the equipment under seat management, making it impossible to use the equipment as collateral, and second, five years, as everyone agreed, is beyond a reasonable refresh rate. The Workgroup discussed making changes to ETF to accommodate seat management, but agreed that those changes may hinder ETF's ability to aid in the purchase of other types of equipment. The Workgroup finally determined that ETF was not the proper mechanism to fund seat management. Ms. Whitley suggested creating an ETF II.[9]

With MELP, the Treasury Board arranges financing, set up in either an installment plan in which the Treasury Board sets the interest rate or in an escrow account established for the equipment. The fund covers equipment only; no services are involved, and the equipment serves as collateral until it is paid off. Once again, this would not work for seat management.[10]

Agencies are provided funding for PC desktop services which can be applied to seat management whether they realize it or not. Eventually when the transition is made to a full seat management program, they will realize that their funding for PC desktop procurement becomes seat management funding. The Workgroup is exploring ways to fund the transition period from ownership to seat management.

Vendor Presentations

In order to get an idea of the variety of options offered with seat management, the Workgroup invited vendors to present their seat management solutions; the vendors include Government Technology Services, Inc. (GTSI), EDS, IBM, Dell, and Gateway. GartnerGroup also presented their views on seat management.

GTSI is located in Chantilly, Virginia, and has been in business for over 15 years. They work only with the government, and were the first company to offer seat management services on a GWAC contract. GTSI offers modular services, where customers are offered a menu of services and they order and pay for only what they need. They also offer online ordering and can keep some GTSI staff on the government site if needed for certain services.

GTSI's service offerings include IT planning/design, asset procurement, asset management, LAN connectivity, setup/installation, remote hosting, help desk support, hardware maintenance/support, technology refreshment, LAN/WAN operations, training, and telecommunications support. Agencies do not need to order all of these services – only what they need.[11]

EDS has been in business since 1962 and has over 9,000 clients worldwide. They recommend a TCO study before implementing a seat management program. EDS can perform that study, using a combination of GartnerGroup tools and research and EDS methodologies. Like GTSI, EDS does not use a "cookie cutter" approach; they provide services that complement the ones the customer chooses to keep in house. EDS provides a monthly report of performance metrics and they take financial accountability when the metrics aren't met.

In addition to the TCO study, EDS's Seat Management services include procurement, technical planning and deployment, asset management, technology refreshment, technical support and maintenance, enterprise help desk support, disposal, training, server management (they will manage in-house servers or they will maintain a customer's server kept at an EDS facility to lower support costs), network connectivity, device service (routers, hubs, switches), printer service, commercial-off-the-shelf software support, and even applications development and maintenance.[12]

IBM Global Services has provided a form of seat management services to private industry for at least ten years. They make a "platform-independent offering," which means the customer does not need to use IBM computers. They also buy existing PCs to provide a credit toward seat management services. IBM's automated tools are continually being enhanced. Although much of IBM's seat management help desk support is in Boulder, Colorado, IBM assigns personnel dedicated to one client so users can reach support staff who are knowledgeable about the client's environment. IBM's government clients include the State of California, two Michigan state agencies, New York State's Department of Health, and CoBank. The New York Department of Health uses Dell and Compaq computers as well as IBM computers on the IBM contract.

IBM also performs TCO analysis, but it is not necessary to use IBM. As a matter of fact, IBM recommends using an independent-party vendor for a TCO study, rather than use the same vendor who will actually provide the seat management service.[13]

Dell packages a wide variety of services into a leasing program similar to seat management because of its single-vendor accountability, flexibility, and ability to

customize services. Dell acts as manufacturer, supplier, servicer, and financer, but they could subcontract if an agency wants non-Dell PCs. Dell's offerings include software image loading, hardware integration, installation, data transfer, printer installation/deinstallation, system upgrade testing, ongoing support (four-hour break/fix for three years), asset tagging, asset reporting, refreshment, and asset disposal. These offerings are à la carte; customers can choose any or all of the services. Current state clients include Pennsylvania, Massachusetts, South Carolina, Florida, Texas, Oregon, and California.[14]

Gateway uses Megabyte Business Systems, Inc. (MBS) as its integrator to provide seat management services. They believe customers choose seat management services with two objectives in mind: economic (to reduce total IT costs) and technical (to enable staff to focus on the agency's mission. Important factors to seat management include the KIS (Keep It Simple) theory of contracting, agency standardization, using economies of scale, and considering upgrade *packages* to enhance performance without major cost increases. In other words, don't introduce too many variables into a seat management program. The more complex a contract is, the more complex the transition will be. Everyone's (agency and vendor participants) responsibilities must be clearly defined to avoid overlapping jobs and ensure the refocus of staff.[15]

GartnerGroup provides analysts who specialize in ESPs/ESPGs (External Service Providers/External Service Providers for Government). They offer advice and share their knowledge on outsourcing issues. Ellen Zidar, ESP/ESPG Analyst, says that distributed computing is currently the Number One outsourced service. She stressed the importance of due diligence from two views: that of sharing information with proposing vendors and that of learning as much as an agency can about the vendor's tools, methodologies, and subcontractors. GartnerGroup recommends making sure vendors integrate asset management with other strategies, such as help desk, and interviewing key players, including subcontractors and project management personnel.

GartnerGroup suggests a three-year term for a seat management contract, with a pilot period of no longer than 12 months. SLAs should be placed in an addendum because they should be revised at least annually. Also, SLAs should be separate because it is easier to drop an addendum than it is to revise the entire contract if requirements change.[16]

VII. Conclusions

Seat management appears to be the answer to supplying PC desktop support for the government for several reasons, namely because it:

- Provides a single source of accountability for all PC desktop hardware and services,
- Simplifies procurement and accounting,
- Levels the PC desktop procurement and services budget, eliminating "peaks and valleys" and encouraging agencies to think of information technology as an investment rather than a way to spend leftover funds at the end of the fiscal year,
- Ensures that technology is kept standardized and working properly,
- Reduces downtime experienced by users reporting problems,
- Places technology refreshment and upgrades on a schedule, rather than a sporadic expense made whenever money is available,
- Eliminates the clutter and expense of warehousing and selling surplus equipment through DGS, and
- Enables government staff to concentrate on the agency's core mission.

Procurement laws and regulations do not seem to need major changes to accommodate seat management, and while it is not feasible to use an existing federal procurement vehicle, it is possible to develop a Commonwealth of Virginia procurement vehicle.

Risks Of Seat Management Contracting

There are a few risks agencies must consider when implementing seat management, but many of the seat management users interviewed for this report will agree that the few risks outweigh the many benefits. If agencies are made aware of the risks, they can take steps to buffer them. One obvious risk of seat management is its youth. As with any new venture, it has been tried and tested by few agencies yet, and agencies are cautious of taking on untested technologies.

Another risk of seat management is that its services are sometimes bundled into packages to lower costs. Although this attribute contributes to seat management's cost effectiveness, agencies cannot drop one aspect of a package. Therefore it is important to think about a seat management menu of services that can apply to all agencies.

One of the biggest risks of seat management contracting is the possibility of an agency's need to cancel its contract, either because of agency dissatisfaction with the vendor or because of changes within the vendor's organization that prevent them from completing the contract. Because the vendor owns the hardware, the agency has two choices: let the vendor remove their machines, leaving the agency without equipment, or pay a lump sum to purchase the equipment, having to find another vendor to service it. Allowances need to be made in the contract to address an alternate strategy when an agency must choose another vendor.

Changes Involved With Implementing Seat Management

Several organizational and cultural changes will occur during seat management implementation. For instance, if an agency's ordering process is not centralized and divisions are permitted to handle their own PC desktop goods and services procurement, then division managers may feel like they are losing control. It is important to stress to managers that centralization keeps equipment standardized, which in turn will lower support costs and interoperability problems. Managers are not losing control; instead they are given the opportunity to concentrate on the core business functions of their units.

Employees will also be frightened of losing their jobs. Whatever an agency's plans are for managing PC desktops, they need to realize that many employees have for years done a great job and deserve to be treated fairly. If an agency does not plan to lay off staff, they should make that clear to their employees by offering information sessions and career enhancement seminars. If the agency intends to implement seat management and there is not money in the budget to keep some staff as well, then they should help see that staff are placed, either with the contractor as demonstrated in Chapter V (NASA) or through agency placement programs.

An organizational change that will need to be communicated to users is that they need to contact their help desks when there is a problem, rather than spend valuable time trying to correct problems themselves or interrupting their peers for help. The contractors are being paid to keep systems operable – "do-it-yourselfers" need to realize that it is all right to hand down duties that misdirect them from their core responsibilities.

Another organizational change is the need to promote an agency staff member into a contract management position. It is important to have a single point of contact for the vendor to interact with. It is also important that every staff member involved – agency and vendor – has a clear definition of their responsibilities.[1]

The last change to point out is the relationship between the contractor and the agency. Seat management programs are business-partner relationships, where both sides work together to help the agency achieve its goals. Both sides share relevant information and cooperate to keep agency operations running smoothly.

Seat Management Workgroup Findings

The Seat Management Workgroup, in its meetings from November 1998 until September 1999, has come to the following conclusions:

- The five steps to a good seat management program are: KIS (Keep It Simple), standardize, use economy of scale, make cultural and organizational changes, and clearly define the roles and responsibilities of everyone involved.[2]

- Seat Management needs to be platform independent to allow contract flexibility.

- Start with pilots before going into full-blown seat management. The amount of money identified should include the pilots.

- Set up a single point of contact for an agency to interact with/manage the vendor.

- Get human resources and communications departments involved in communicating how seat management impacts staff. Executive buy-in is also important, especially in the early stages of procurement.

- Perform a site survey and due diligence when procuring for seat management.

- In the contract, spell out service levels, performance evaluation metrics, and what will happen if SLAs are not met.

- Perform a TCO or cost benefit analysis prior to entering into seat management. Choose a TCO vendor who most likely will not be the seat management provider and will not have a vested interest in the seat management contract.

- After examining the Equipment Trust Fund (ETF) and the Master Equipment Leasing Program (MELP), the Workgroup has not found a source to fund the transition to seat management. It is currently not possible to use the Treasury Board's Equipment Trust Fund (ETF) program for funding the transition to seat management for colleges and universities, but altering ETF may hinder its ability to fund the other types of equipment it was designed to fund, such as scientific and research equipment.

VIII. Recommendations

The COTS Seat Management Workgroup recommends that the Commonwealth of Virginia should move to a seat management program in order to support the business needs of the Commonwealth, with exceptions as necessary over the next biennium. Pilots within all agencies should conclude over the next two biennia. The participants should be all state agencies as well as educational institutions, local governments (including school districts), and college students. The Commonwealth should consider an implementation goal of July 1, 2000, with the transition period to be determined thereafter. While making a seat management approach available to state employees is not practical for current purposes (it is not a benefit directly applied to seat management), the possibility should be further explored.

Organization

The Technology Secretariat should establish a Seat Management Office as a point of contact for the Commonwealth. Duties should be to coordinate the development of contracts, set minimum standards, serve as a best practices repository, be a resource to agencies, assist in funding pilots, evaluate and recommend any modifications to seat management practice in the state, and develop a transition plan to seat management or from one seat management contract to a new one.

Another responsibility for the Seat Management Office should be to work out an alternate or change-of-vendor strategy, in case the agency is unhappy with vendor performance or vendor changes prevent them from fulfilling the contract. This strategy should be outlined in seat management contracts, including a payment plan if agencies choose to buy out the vendor's assets that are already on the agency site.

Funding

Each agency, college, and institution needs to outline a simple, repeatable process for determining TCO as minimum performance measure criteria. The process should include a standardized indirect cost set by the Seat Management Office. Agencies should evaluate TCO and benefits prior to implementing seat management *and* on an ongoing basis.

The cost to provide the transition to a seat management program is estimated to be $7.2 million (general fund) for the Biennium 2000-2002; this figure is determined by the estimated $1,200 annual seat cost multiplied by 10 percent of the estimated 60,000 PC desktops in use statewide. As the Workgroup determined ETF is not feasible for funding the transition to seat management for colleges and universities, the Seat Management Office should work with colleges and universities as well as the Treasury Board to develop an ETF II.

Standards

Because there are so many different ways to provide seat management, it should be up to each agency to determine PC desktop standards, as long as they meet a state minimum set

of standards. Hardware should be limited to GartnerGroup Tier 1 and Tier 2 brands. Procurement for seat management should be open-ended to take into consideration the standards of each agency. Agencies and vendors need to outline a policy concerning agencies loading software for individual users, with the agencies' understanding that it drives up costs if the machine is affected by the software load.

Menu Of Vendor Options

The scope of seat management may be modeled after the GSA Seat Management contract, setting a minimum floor with a choice of core and optional services. There should also be a standard set of service level agreements (SLAs). The Seat Management Office should set up the menu of options.

The Workgroup is aware of the other discussions currently occurring regarding who will have IT procurement responsibility and wishes to emphasize that whoever is responsible for seat management should make it a multiple award procurement. Agencies should have multiple vendors to choose from who should be prequalified for seat management to ensure vendors have the experience and proven ability to handle the contract.

Seat Management Template

The Seat Management Office should create a seat management template. The length of a contract should be no more than 36 months, with a 12-24-36 refresh cycle. The Office should also develop an agency guidebook on seat management.

Changes To Code And Administrative Policies

To allow vendor prequalification, the VPPA, Section 11-46.B.2 should be reworded. The word *construction* should be removed from "The contractor does not have appropriate experience to perform the construction project in question." Without *construction*, agencies are free to use lack of experience as an eliminating factor in prequalification.

A change in administrative policy needs to be made if the Seat Management Office wants to allow trade-in of old equipment for seat management. *APSPM* 12.7.f(1) prohibits trade-in of state property for credit toward a service, but it does allow trade-in to obtain a newer item that performs the same function as the old item. Seat management is a services contract that replaces old technology performing the same function. The section should be reworded to allow credit for trade-in of the replacement seat management PCs.

With the Technology Secretariat being recommended to have responsibility for establishment and implementation of the Commonwealth's seat management program, Code of Virginia and *Agency Procurement and Surplus Property Manual* (*APSPM*) sections require review for applicable changes to be prepared for the 2000 General Assembly session. Appropriate agencies, the attorney general, and the Division of Legislative Services should be involved in code review.

IX. Appendices

Appendix A: COTS Seat Management Workgroup Charter
Appendix B: Glossary of Terms and Acronyms
Appendix C: VDOT's TCO Methodology

Appendix A

Council on Technology Services
Seat Management Workgroup
Charter

Committee Context:

The COTS Seat Management Workgroup was formed to look at issues relating to alternatives to purchasing desktop and other technology for state agencies and institutions. Within the context are the following items:

- Explore potential use of the Equipment Trust Fund (ETF) for colleges and universities,
- Use a template in order to procure items from a seat management contract,
- Document the experience of the U.S. General Services Administration and determine how it could affect or influence the Commonwealth of Virginia,
- Communicate Seat Management as a cost-effective alternative to buying,
- Recommend a way by which vendors might be prequalified to administer seat management,
- Recommend necessary changes to the Code of Virginia to accommodate seat management,
- Establish the baseline costs for PC desktops to show savings (show how to calculate the industry as well as agency or institution baselines),
- Describe the non-tangible benefits of seat management,
- Outline exit strategies,
- Document business changes that are likely to occur when implementing,
- Develop a guide book for agencies on how to deploy seat management and list success factors (gather information from the pilot programs),
- Explore use of the Treasury Board Master Equipment Leasing Program, and
- Document results and success factors of current seat management programs.

Customers:

Commonwealth of Virginia employees and consultants using cost-effective technology to meet the public's needs for public services.

Stakeholders:

Secretary of Technology
COTS Members
Agency and public institution administrators
All state government (all branches)

Sponsor:

The Honorable Donald W. Upson, Secretary of Technology

Deliverables/Milestones:

October 1999	Final committee recommendations to the COTS
As developed	Code changes, budget, or financial recommendations

Resources:

Seat Management Workgroup membership
Members staff, as necessary
VDOT SITEA (Services for Information Technology/Enterprise Architecture)
Project management and other seat management teams
Treasury Board
State Council of Higher Education

Constraints:

2000 Session of the General Assembly
Year 2000 issues
Success factors of current seat management projects

Appendix B

Glossary Of Terms And Acronyms

AFFIRM:	Association for Federal Information Resources Management; group that prepares yearly white papers on government information resource management issues
APSPM:	*Agency Procurement and Surplus Property Manual*; manual that contains policies and procedures for procurement and surplus property handling in Virginia state government
Asset Management:	The business discipline of managing strategic information infrastructure by quantifying it, uncovering problem areas, and measuring its strategic goals
ATF:	The U.S. Department of Treasury's Bureau of Alcohol, Tobacco, and Firearms
CADD:	Computer-Aided Drafting and Design
CEO:	Chief Executive Officer
CIO:	Chief Information Officer
Cooperative Procurement:	A process by which two or more agencies develop an RFP to consolidate procurement efforts
COTS:	Council on Technology Services; council created in 1998 by Virginia Governor Jim Gilmore to address government IT issues
DCI:	Desktop Computing Initiative; University of Virginia's plan to manage the desktop environment (still in the procurement stage)
DGS:	Department of General Services; a Virginia state agency
DHHS:	North Carolina's Department of Health and Human Services; soliciting for a seat management contract
DIT:	Department of Information Technology; a Virginia state agency

DOC:	Department of Corrections; a Virginia state agency
DOSP:	Delivery Order Selection Process; NASA's process of choosing a vendor from their ODIN contract
DPB:	Department of Planning and Budget; a Virginia state agency
DPS:	DGS's Division of Purchases and Supply
Due Diligence:	(From *Black's Law Dictionary*, Page 457) "Such a measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable and prudent man under the particular circumstances; not measured by any absolute standard, but depending on the relative facts of the special case." (When referring to government contracts) The practice of an agency to learn as much as possible about potential contractors and subcontractors and letting competing vendors learn more about the business processes of a function to be outsourced to allow for more accurate implementation plans and cost estimates
ETF:	Equipment Trust Fund; a Treasury Board equipment funding vehicle for educational institutions
FAACS:	Fixed Asset Accounting and Control System; Department of Accounts' system for Virginia state agencies to use in tracking assets
FTE:	Full-Time Equivalent government staff member
FTS:	Federal Technology Service; the GSA department that offers Seat Management services
GP:	General Purpose; a type of desktop offered through NASA's ODIN contract that has three performance levels (GP1, GP2, GP3)
GSA:	General Services Administration; a federal government agency
GSA's Seat Management:	GSA's GWAC for seat management
GSFC:	NASA's Goddard Space Flight Center

GTSI:	Government Technology Services, Inc.; a seat management vendor
GWAC:	Governmentwide Agency Contract
HTSC:	Halifax Technology Services Corporation; a seat management vendor
IDIQ:	Indefinite Delivery, Indefinite Quantity; a type of government contract that doesn't guarantee a specific amount of business
Integrator:	A vendor who combines computer reselling with services and supplies a wide range of products and brand names
IS:	Information Systems
IT:	Information Technology
ITOP/ITOP II:	USDOT's Information Technology Omnibus Procurement; a type of GWAC that covers a variety of IT services
JPL:	NASA's Jet Propulsion Laboratory
KIS:	Keep It Simple; one of MBS's theories of effective seat management
MAC:	Move/add/change; a part of asset management that deals with a PC changing locations, having new users added, and changing users
MBS:	Megabyte Business Systems, Inc.; a seat management vendor
MELP:	Master Equipment Leasing Program; a Treasury Board equipment-funding vehicle for state agencies
Multiple Award Contract:	A contract awarded to multiple vendors that doesn't guarantee *one* vendor all the business
NASA:	National Aeronautics and Space Administration; a federal agency
NPR:	National Performance Review; a reporting commission led by Vice President Al Gore that examines ways of making government more efficient and effective

NSTL:	National Software Testing Laboratories; an independent software testing facility
ODIN:	Outsourcing Desktop Initiative for NASA; NASA's GWAC for seat management
OEM:	Original Equipment Manufacturer
Piggybacking:	One agency using another agency's contract to receive identical pricing
RFP:	Request for Proposal
SE:	Scientific and Engineering; a type of PC desktop offered through NASA's ODIN contract that has three performance levels (SE1, SE2, SE3)
Seat Management:	an IDIQ contracting agreement that transfers the responsibilities of acquisition, planning, installation, configuration, testing, maintenance/repair, upgrades, training, project management, asset management, and other aspects of the PC desktop computing environment from the agency to a contractor, turning the PC desktop into a sort of utility, with fees charged monthly by the "seat," or the entire "package" at each user's desk
SITEA:	Services for Information Technology/Enterprise Architecture; VDOT/VRS's single-vendor seat management contract
SLA:	Service Level Agreement; an agreement for service time frame and quality that the vendor must follow
SOM:	Systems Operations and Management; the functional area within ITOP II that addresses seat management
SPO:	Special Project Office; the ITOP department responsible for evaluating proposals and approving awards
TASC:	Transportation Administrative Service Center; the USDOT department that issues ITOP/ITOP II
TCO:	Total Cost of Ownership; the term used to address the overall cost of IT for an organization

Technology Refreshment:	Also known as Tech Refresh, a method of keeping computer equipment current by replacing it after a period of time specified in the contract
Tier:	A quality level associated with every brand of computer (the Tier 1 group, Tier 2 group, etc.); developed by GartnerGroup
TORFP:	Task Order Request for Proposal; the name for task orders issued under an ITOP/ITOP II contract
USDOT:	U.S. Department of Transportation; a federal agency
UTMB:	University of Texas Medical Branch; negotiating a seat management contract
UVA:	University of Virginia; a Virginia state-supported college
VDOT:	Virginia Department of Transportation; a state agency
VPPA:	Virginia Public Procurement Act; the sections of the Code of Virginia that deal with government procurement of goods and services
VRS:	Virginia Retirement System; a state agency
White Boxes:	Generic, no-name computers that are cheaper to purchase than brand names
Workgroup:	The COTS Seat Management Workgroup

Appendix C

VDOT's TCO Methodology

The following is the formula that VDOT used in a 1996 cost benefit analysis to determine whether or not VDOT should issue an RFP for seat management. Therefore, the only factors of TCO that were included were ones that related directly to obtaining and supporting PCs.

VDOT used 2,000 PCs in the analysis, assuming that if VDOT were on a 36-month refresh cycle they would replace 2,000 per year. VDOT did not include indirect costs, such as the cost of end users supporting themselves, the cost of downtime, and the loss of residual value from lengthy warehousing in poor climate conditions.

The average annual cost of hardware was $2,500 per PC, and the cost of software was $500 per PC. These figures were easily researched through Accounting.

VDOT determined it had a total of 36 staff members in the Divisions and Districts who were specifically responsible for PC procurement and support. This figure was multiplied by an average salary of $35,000 per year and a benefits ratio of 1.5 per year to determine that it costs VDOT approximately $1.9 million (or $950 per PC) per year to retain PC support personnel.

Annual disposal costs were $400 per PC. At the time this analysis was made, VDOT stored its used PCs in a central warehouse. When VDOT purchased new PCs, they paid 16 percent extra to cover the costs of warehousing and disposal – 16 percent of $2,500 is $400.

Maintenance contracts with hardware providers totaled $180,000, or $90 per PC for 2,000 PCs.

Therefore, the following figures were totaled to determine annual direct costs:

$2,500+	Hardware acquisition
$500+	Software acquisition
$950+	Personnel
$400+	Disposal
$90	Maintenance contracts
Approximately $4,500 per PC, or $375 per month	

X. Chapter Notes

I. Executive Summary

1. FTS
2. Leibovich.
3. Crigler, Hodge, and Mose.

II. Introduction

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1. Hagerty, Telephone conversation.
2. GTSI.
3. GartnerGroup, "The New GartnerGroup TCO Model – Distributed Computing Chart of Accounts."
4. DePompa Reimers.
5. Karabaic and Viar.
6. DePompa Reimers.
7. Kreibel.
8. Robinson, "The Leasing Option: The Costs and Benefits of Alternative Financing."
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10. Husselbaugh, Page 2.
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IV. Current Seat Management Programs

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2. Karabaic and Viar.
3. VDOT Commissioner's Office.
4. Fraser and Haynes.
5. Ibid.
6. Ibid.
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8. Desenberg, Telephone conversation.
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10. GSA, Seat Management Services Web Page.
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12. Varon.
13. Jurcich, Telephone conversation.
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19. Hill.
20. Jones.
21. Towns.
22. Ibid.

V. Procurement Of Seat Management

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3. Zidar.
4. Stergiou.
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6. VPPA, Section 11-46.
7. Kelman.
8. Constable.
9. Driver.
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12. Ibid.
13. *APSPM*, Section 4.18.

14. Ibid., Annex 4-C.
15. VPPA, Section 11-46.B.
16. *APSPM*, Section 3.18.
17. Higgins, Telephone conversation.
18. Peckinpaugh.
19. *APSPM*, Section 12.7.f(1).
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22. GSA, *Outsourcing Information Technology*.
23. Robinson, "The Leasing Option: The Costs and Benefits of Alternative Financing."

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2. GSA, Seat Management Services Web Page.
3. GSA News Release No. 9514.
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5. Hagerty, Telephone conversation.
6. USDOT, *ITOP Handbook*.
7. USDOT, *ITOP II Handbook*.
8. Barry, Telephone conversation.
9. COTS, February 12, 1999.
10. Whitley, Telephone conversation.
11. Greene.
12. Cole.
13. Stergiou.
14. Halstead.
15. Crigler, Hodge, and Mose.
16. Zidar.

VII. Conclusions

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XII. For Further Reading

A number of Web sites provide further information about seat management. Here are a few of them:

- Association for Federal Information Resources Management (AFFIRM) – Each year, AFFIRM publishes a white paper on a different information technology topic. In July 1998, they issued *Seat Management: A Federal IRM Perspective*. To view the white paper online, go to *http://www.affirm.org*, then choose *Publications*, then *White Papers*, and the publication on seat management is listed along with publications on a variety of other topics.

- Council on Technology Services (COTS) – The COTS Web site also provides information on a variety of technology-related topics, but information about the Seat Management Workgroup meetings can be found in the meeting minutes. Go to *http://www.sotech.state.va.us/cots/,* and choose *Meeting Minutes*, then pick a meeting date under *Seat Management Workgroup*. This report will also be published online under *Publications*.

- Federal Computer Week Seat Management Page – Federal Computer Week is a weekly technology magazine for the Federal government. They have a special issue online with links to seat management articles and other pages. Go to *http://www.fcw.com/ref/hottopics/seat.htm*.

- Outsourcing Desktop Initiative for NASA (ODIN) – NASA provides information on its own seat management program, ODIN. Go to *http://outsource.gsfc.nasa.gov/*.

- General Services Administration (GSA) Seat Management Page – GSA's Federal Computer Acquisition Center (FEDCAC) publishes a Web page for those interested in learning more about Seat Management Services. Go to *http://gsa.gov/fedcac/seat.htm*.